

WHAT IS CLAIMED IS:

1. A system for providing cross-marketing promotional offers to a customer, said system comprising:

5 at least one product inventory location for holding distinct products and displaying said distinct products to customers wherein at least one said distinct product is associated with at least one electronic tag, and wherein said at least one electronic tag is configured to convey product information;

at least one electronic tag reading device configured to retrieve information from the at least one electronic tag;

10 an electronic computing device in communication with said at least one electronic tag reading device and configured to accept, process, store and output said product information;

said electronic computing device further configured to:

15 (a) use said at least one electronic tag reading device to retrieve product information from an electronic tag associated with a hot-product wherein said hot-product is at least one of (i) a product being examined by a customer; and (ii) a product in a customer-storage-area;

(b) use said product information to determine if a cross-marketing promotional offer is associated with said hot-product;

20 (c) to notify said customer of a cross-marketing promotional offer determined to be associated with said hot-product; and

wherein said promotional offer is one of a real time promotional offer and a near real time promotional offer.

2. A system for providing cross-marketing promotional offers to a customer as in claim 1, wherein said cross-marketing promotional offer is triggered by at least two items in said customer-storage-area.

3. A system for providing cross-marketing promotional offers to a customer as in claim 1, wherein said electronic tag is an RFID smart tag and said electronic tag reading device is an RFID STR device.

4. A system for providing cross-marketing promotional offers to a customer as in claim 1, wherein said electronic tag reading device is further configured to transmit an electronic tag trigger signal.

5. A system for providing cross-marketing promotional offers to a customer as in claim 1, wherein said electronic computing device is a central computer.

6. A system for providing cross-marketing promotional offers to a customer as in claim 5, wherein said central computer is in communication with a customer-interface associated with said customer-storage-area and wherein said customer-interface is configured to display at least part of said product information received from at least one of said central computer and said electronic tag reading device.

7. A system for providing cross-marketing promotional offers to a customer as in claim 1, wherein said electronic computing device is a computer comprising a customer-interface associated with said customer-storage-area.

8. A system for providing cross-marketing promotional offers to a customer as in claim 7, wherein said customer-interface is in communication with a central computer and wherein said customer-interface is further configured to receive a customer request for a desired product and to transfer said customer request to said central computer.

5 9. A system for providing cross-marketing promotional offers to a customer as in claim 8, wherein said customer-interface is further configured to receive and display product information from at least one of said electronic tag reading device and said central computer.

10. A system for providing cross-marketing promotional offers to a customer as in claim 9, wherein said customer-interface further comprises an RFID STR device and wherein said customer-storage-area further comprises a scale in communication with said customer-interface.

11. A smart cart comprising:
a customer-storage-area associated with said smart-cart and used by a customer to store products while shopping, wherein said customer-storage-area comprises an item-evaluator;

5 at least one electronic tag reading device configured to retrieve product information from electronic tags associated with products;

10 a smart cart computer in communication with said at least one electronic tag reading device and configured to retrieve product information from at least one electronic tag associated with a hot-product wherein said hot-product is at least one of: (a) a product being examined by a customer; and (b) a product in said customer-storage-area;

wherein said smart cart computer is in communication with said item-evaluator;

15 wherein said smart cart computer is further configured to use said item-evaluator to measure a physical parameter of said hot-product placed in said customer-storage area;

wherein said smart cart computer is further configured to communicate with a remote computer and retrieve supplemental-product-information associated with said hot-product using at least part of said product information; and

20 wherein said smart cart computer is further configured to present to said customer at least one member from the group consisting of: (a) at least part of said product information; (b) at least part of said supplemental-product-information; and (c) measured hot-product physical parameter information.

12. A smart cart as in claim 11, wherein said at least one electronic tag reading device is an RFID STR device configured to receive electronic tag transmissions and to transmit an electronic tag trigger signal upon one of an automated computer request generated by said remote computer, an automated computer request generated by said smart cart computer and a manual request generated by said customer.

13. A smart cart as in claim 11, wherein said smart cart computer is further configured to receive real-time cross-marketing promotional offers from said remote computer and present said real-time promotional offers to said customer and wherein said hot-product is a product placed in said customer-storage area.

14. A smart cart as in claim 11, wherein
said supplemental-product-information further comprises expected weight information for said hot-product;
said item-evaluator is a scale;

5 said physical parameter is weight; and

 said smart cart computer is configured to verify that the total-measured-weight of hot-products in said customer-storage-area is within a predefined weight-tolerance of the expected-total-weight for said hot-product.

15. A smart cart as in claim 14, wherein said smart cart computer is further configured to communicate with a check-out-computer at a point of sale and wherein said smart cart computer transfers to said check-out-computer at least part of the product information related to the hot-product in said customer-
5 storage-area.

16. A smart cart as in claim 15, wherein at least one of said smart cart computer and said check-out-computer automatically determines the total sales price minus any qualifying cross-marking discounts for said hot-product.

17. A smart cart as in claim 16, wherein at least one of said smart cart computer and said check-out-computer automatically validates a customer check-out by verifying that the total-measured-weight for the hot-product in said customer storage area is within a predefined weight-tolerance of the expected-total-weight
5 for said hot-product.

18. A network enabled smart cart comprising:
 a customer storage area comprising a scale;
 a customer interface;
 at least one electronic tag scanning device associated with said customer
5 interface and configured to receive electronic tag transmissions from electronic
 tags associated with hot-products.

 a first computer associated with said customer interface;
 wherein said first computer is in communication with said at least one
 electronic tag scanning device and configured to retrieve product information
10 stored in the electronic tags associated with said hot-products;
 a first network operating in accordance with a predetermined protocol;
 a second network comprising a plurality of said customer interfaces;
 a gateway operatively coupled to said first network and to said second
 network; and

15 an HTTP server embedded in one of said gateway and said plurality of customer interfaces.

19. A network enabled smart cart as in claim 18, wherein said customer interface further comprises at least one of: (a) an LCD display; (b) an audio system for generating and receiving audio messages; (c) a digital camera; (d) a video camera; and (e) a card reader.

20. A network enabled smart cart as in claim 19, wherein said first computer is configured to establish a communication connection to a third party computer.

21. A network enabled smart cart as in claim 19, wherein said first computer is further configured to execute a Main CMAC routine when a smart cart is present at a point of sale location.

22. A network enabled smart cart as in claim 19, wherein said at least one electronic tag scanning device and said scale are integrated into the same component.

23. A network enabled smart cart as in claim 19, wherein said first computer is in communication with a remote computer and wherein said first computer is further configured to use the product information retrieved from the electronic tags associated with said hot-products to retrieve supplemental-product-information from said remote computer.

24. A network enabled smart cart as in claim 23, wherein said supplemental-product-information includes at least one of the following: (a) hot-product expected-weight information; (b) hot-product pricing information; and (c) promotional offering information associated with the purchase of said hot-product.

25. A network enabled smart cart as in claim 24, wherein said first computer is in communication with said scale and configured to retrieve measured weight information for said hot-products and compare said measured weight with said expected-weight and issue an alert when said measured weight is not within a predefined tolerance of said expected weight.

26. A network enabled smart cart as in claim 25, wherein said first computer is further configured to use said customer interface to present said promotional offering information associated with said hot products to a customer.

27. A network enabled smart cart as in claim 26, wherein said first computer is further configured automatically determine the pricing information for said hot products and automatically adjust said pricing information consistent with the requirements of accepted promotional offers.

28. A method for notifying a customer of a cross-marketing promotional offer comprising the steps of:

- (a) associating at least one electronic tag with products;
- (b) retrieving product information from said at least one electronic tag associated with a hot-product wherein said hot-product is a hot-product being viewed by a customer;
- (c) determining if a cross-marketing promotional offer is associated with the purchase of said hot-product wherein said cross-marketing promotional offer relates to the purchase of a second-product;
- 10 (d) automatically notifying said customer of a cross-marketing promotional offer associated with the purchase of said hot-product;
- (e) detecting when said customer accepts said cross-marketing promotional offer and automatically making the appropriate check-out adjustments.

29. A method for notifying a customer of a cross-marketing promotional offer as in claim 28, wherein said at least one electronic tag is an RFID smart tag.

30. A method for notifying a customer of a cross-marketing promotional offer as in claim 28, wherein said cross-marketing promotional offer is one of a real-time offer and a near real-time offer.

31. A method for notifying a customer of a cross-marketing promotional offer as in claim 28, wherein said step of automatically notifying said customer of a cross-marketing promotional offer comprises at least one of the following:

- 5 (a) displaying a message on a customer interface;
- (b) detecting when the customer is near said second-product and displaying a message on a smart-shelf display; and
- (c) detecting when the customer is near said second-product and generating a symphonized voice message using hypersonic sound technology and directing said voice message to said customer.

32. A method for notifying a customer of a cross-marketing promotional offer as in claim 28, wherein the step of detecting when said customer accepts a cross-marketing offer comprises the steps of:

5 (a) receiving a customer response indicating that the cross-marketing promotional offer has been accepted; and

(b) automatically determining when said second-product is in a customer-storage-area during check-out.

33. A method of performing an automatic check-out comprising the steps of:

5 (a) associating electronic smart tags with products, wherein each distinct product is associated with at least one said smart tag, said smart tags containing product-information regarding their respective product;

(b) generating at least one electronic tag trigger signal of sufficient strength to trigger electronic tag transmissions associated with hot-products located at a point of sale wherein said hot-products are products a customer desires to purchase;

10 (c) detecting electronic tag transmissions generated by electronic tags associated with said hot-products and retrieving at least part of said product-information contained in said electronic tag transmissions;

(d) using said product information to determine the expected weight of said hot-products and the price of said hot-products;

15 (e) determining a measured-weight of said hot-products;

(f) notify said customer of a valid check-out by verifying that said measured-weight of said hot-products is within a predefined weight-tolerance for the expected weight of said hot-products.

34. A method of performing an automatic check-out as in claim 33, wherein said electronic smart tags are RFID smart tags and said at least one electronic tag trigger signal is generated by an RFID STR device.

35. A method of performing an automatic check-out as in claim 33, wherein said product-information comprises product identification information and said step of using said product information to determine the expected weight of said hot-products and the price of said hot-products is accomplished by retrieving

5 said weight and said price information from a remote database using said product identification information.

36. A method of performing an automatic check-out as in claim 33, wherein said step of using said product-information to determine the price of said hot-products includes the steps of retrieving any promotional offers associated with the purchase of said hot-products and automatically adjusting the purchase 5 price consistent with the terms of said promotional offers.

37. A method of performing an automatic check-out as in claim 33, wherein said step of determining the weight of said hot-products is performed by weighing all hot-products at the same time while on a scale associated with said customer-storage-area.

38. A method of performing an automatic check-out as in claim 33, wherein said step of determining the weight of said hot-products is performed by weighing said hot-products on a scale associated with said check-out-station wherein said hot-products are weighted one of (i) all at one time and (ii) one at a 5 time.

39. A method of performing an automatic check-out as in claim 33, further comprising the step of automatically notifying a customer service representative when the weight of said hot-products is not within a predefined weight-tolerance of the expected weight for said hot-products.